

Applicants: Robert L. Fine, et al.
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Amendments to the Claims:

Please cancel claims 21, 22, 24, 25, 29, 30, 32-35, and 38-40 without disclaimer or prejudice to applicants' right to pursue the subject matters of these claims in the future.

Pursuant to 37 C.F.R. §1.121(c), this listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A polypeptide comprising a first segment of continuous amino acids having the sequence AQAGKEPGGSRAHSSHLKSKKGQSTSRRHKKLMFKTEGPDS (SEQ ID NO. 1) covalently linked to a second segment of continuous amino acids having the sequence DSDPGETKFMLKKHRSTSQGKKSKLHSSHARSGGPEKGQA (SEQ ID NO. 2).
2. (Original) The polypeptide of claim 1, further comprising a glycine between the first segment and the second segment.
3. (Original) The polypeptide of claim 1, further comprising a six repeat histidine tag attached to the N-terminus of the polypeptide.
4. (Original) The polypeptide of claim 1, further comprising a membrane carrier peptide attached to the C-terminus of the polypeptide.
5. (Original) The polypeptide of claim 4, wherein the membrane carrier peptide (Ant) comprises amino acids having the sequence KKWKMRNQFWVKVQRG (SEQ ID NO. 8).
6. (Original) The polypeptide of claim 1, further comprising:
 - a. a six repeat histidine tag attached to the N-

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terminus of the polypeptide; and

b. a membrane carrier peptide attached to the C-terminus of the polypeptide.

7. (Original) The polypeptide of claim 1, comprising amino acids having the palindromic sequence AQAGKEPGGSRAHSSHLKSKKGQSTSRRHKKLMFKTEGPDS [glycine] DSDPGET KFMLKKHRSTSQGKKS KLHSSHARSGGPEKGAQA (SEQ ID NO. 3), wherein the glycine may be present or absent.

8. (Original) The polypeptide of claim 1, comprising amino acids having the palindromic sequence DSDPGETKFMLKKHRSTSQGKKS KLHSSHARSGGPEKGAQA [glycine] AQAGKEP GGSRAHSSHLKSKKGQSTSRRHKKLMFKTEGPDS (SEQ ID NO. 4), wherein the glycine may be present or absent.

9. (Original) The polypeptide of claim 7, comprising amino acids having the palindromic sequence AQAGKEPGGSRAHSSHLKSKKGQSTSRRHKKLMFKTEGPDS [glycine] DSDPGET KFMLKKHRSTSQGKKS KLHSSHARSGGPEKGAQA [glycine] AQAGKEPGGSRAHS SHLKSKKGQSTSRRHKKLMFKTEGPDS [glycine] DSDPGETKFMLKKHRSTSQGK KS KLHSSHARSGGPEKGAQA (SEQ ID NO. 5), wherein the glycine may be present or absent.

10. (Original) The polypeptide of claim 9, further comprising a six repeat histidine tag attached to the N-terminus of the polypeptide.

11. (Original) The polypeptide of claim 9, further comprising a membrane carrier peptide attached to the C-terminus of the polypeptide.

12. (Original) The polypeptide of claim 11, wherein the membrane carrier peptide comprises amino acids having the sequence KKWKMRRNQFWVKVQRG (SEQ ID NO. 8).

13. (Original) The polypeptide of claim 9, further comprising:

a. a six repeat histidine tag attached to the N-

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terminus of the polypeptide; and

b. a membrane carrier peptide attached to the C-terminus of the polypeptide.

14. (Original) The polypeptide of claim 8, comprising amino acids having the palindromic sequence DSDPGETKFMLKKHRSTSQGKKSKLHSSHARSGGPEKGAQA [glycine] AQAGKEP GGSRAHSSHLSKKGQSTSRRHKKLMFKTEGPDS [glycine] DSDPGETKFMLKKH RSTSQGKKSKLHSSHARSGGPEKGAQA [glycine] AQAGKEPGGSRAHSSHLSKKS QGSTSRRHKKLMFKTEGPDS (SEQ ID NO. 6), wherein the glycine may be present or absent.
15. (Original) The polypeptide of claim 14, further comprising a six repeat histidine tag attached to the N-terminus of the polypeptide.
16. (Original) The polypeptide of claim 14, further comprising a membrane carrier peptide attached to the C-terminus of the polypeptide.
17. (Original) The polypeptide of claim 16, wherein the membrane carrier peptide comprises amino acids having the sequence KKWKMRRNQFWVKVQRG (SEQ ID NO. 8).
18. (Original) The polypeptide of claim 14, further comprising:
 - a. a six repeat histidine tag attached to the N-terminus of the polypeptide; and
 - b. a membrane carrier peptide attached to the C-terminus of the polypeptide.
19. (Original) The polypeptide of claim 9, comprising amino acids having the palindromic sequence AQAGKEPGGSRAHSSHLSKKGQSTSRRHKKLMFKTEGPDSDDDPGETKFMLKKHRS TSQGKKSKLHSSHARSGGPEKGAQA AQAGKEPGGSRAHSSHLSKKGQSTSRRHKKLM FKTEGPDSDDDPGETKFMLKKHRSTSQGKKSKLHSSHARSGGPEKGAQA (SEQ ID NO. 7).
20. (Original) A polypeptide comprising at least two

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covalently linked segments of continuous amino acids, each segment comprising consecutive amino acids having the sequence AQAGKEPGGSRAHSSHLKSKKGQSTSRRHKKLMFKTEGPDS (SEQ ID NO. 1).

21. (Canceled)

22. (Canceled)

23. (Original) A polypeptide comprising at least two covalently linked segments of continuous amino acids, each segment comprising consecutive amino acids having the sequence DSDPGETKFMLKKHRSTSQGKKSKLHSSHARSGGPEKGQA (SEQ ID NO. 2).

24. (Canceled)

25. (Canceled)

26. (Currently Amended) A nucleic acid comprising nucleotides encoding the polypeptide of ~~any one of claims 1-25~~ claim 1.

27. (Currently Amended) A plasmid which expresses the polypeptide of ~~any one of claims 1-25~~ claim 1.

28. (Original) A viral construct containing the plasmid of claim 27.

29. (Canceled)

30. (Canceled)

31. (Currently Amended) A method of treating a subject suffering from cancer by administering to the subject the polypeptide of ~~any of claims 1-25~~ claim 1.

32. (Canceled)

33. (Canceled)

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34. (Canceled)

35. (Canceled)

36. (Currently Amended) A pharmaceutical composition comprising the polypeptide of ~~any of claims 1-25~~ claim 1 and a pharmaceutically acceptable carrier for treating cancer.

37. (Currently Amended) A method of inducing apoptosis of a cell that contains mutant p53 or over-expressed wild-type p53 comprising contacting the cell with the polypeptide of ~~any one of claims 1-25~~ claim 1.

38. (Canceled)

39. (Canceled)

40. (Canceled)